Table S5: Results obtained with a combination of several clustering programs in the *de novo* approach

Genome	Combination of clustering programs	Consensus sequences	S <sub>n</sub> *	S <sub>p</sub> *	$R_{\rm CC}$
D. mel.	GROUPER	730	80.34%	85.89%	66.20%
	RECON	451	92.31%	73.17%	66.20%
	PILER	120	62.39%	84.17%	51.50%
	GROUPER + RECON	1181	93.16%	81.03%	79.40%
	GROUPER + PILER	850	81.20%	85.65%	66.20%
	RECON + PILER	571	92.31%	75.48%	73.50%
	GROUPER + RECON + PILER	1301	93.16%	81.32%	79.40%
A. tha.	GROUPER	1428	60.33%	82.42%	39.00%
	RECON	1021	73.77%	61.70%	43.50%
	PILER	300	47.21%	57.33%	32.45%
	GROUPER + RECON	2449	74.43%	73.79%	49.35%
	GROUPER + PILER	1728	63.93%	78.07%	39.60%
	RECON + PILER	1321	74.10%	60.71%	44.15%
	GROUPER + RECON + PILER	2749	74.43%	72.00%	49.35%

 $S_n^*$ : percentage of "knowledge-based" consensus sequences matching a *de novo* consensus

S<sub>p</sub>\*: percentage of *de novo* consensus sequences matching a "knowledge-based" consensus

 $R_{\text{CC}}$ : percentage of fully recovered "knowledge-based" consensus sequences